

**Response Under 37 C.F.R § 1.116**

Applicant: Elisa M. Cross

Serial No.: 10/017,268

Filed: December 14, 2001

Docket No.: 57013US002

Title: TOUCH PANEL SPACER DOTS AND METHODS OF MAKING

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**REMARKS**

In the Final Office Action mailed May 3, 2007, claims 1-7 and 15-18 were rejected under 35 U.S.C. § 103(a) as obvious over Matsuda et al., U.S. Patent No. 5,541,370 (“Matsuda”) in view of Getz, U.S. Patent No. 6,627,918 (“Getz”), and claims 8-14 and 52-56 were rejected under 35 U.S.C. § 103(a) as obvious over Matsuda in view of Getz and further in view of Sacripante et al., U.S. Patent No. 5,989,325 (“Sacripante”).

With this Response, claims 1-18 and 52-55 remain pending in the application and are presented for consideration and allowance.

**Claim Rejections under 35 U.S.C. § 103**

Claims 1-7 and 15-18 were rejected under 35 U.S.C. § 103(a) as obvious over Matsuda in view of Getz. The Office Action at pages 2-3 interprets Matsuda to disclose ink jet printing dots on a first conductive coating and interprets Getz as disclosing a nanocomposite including nanoparticles. The Office Action concludes at page 3 that it would have been obvious to employ the nanoparticles disclosed by Getz in the process of Matsuda to arrive at the claimed limitations of independent claim 1. We disagree.

Patent Office policy is to follow *Graham v. John Deere Co.* in the consideration and determination of obviousness under 35 U.S.C. § 103. MPEP § 2141. The four *Graham* factual inquiries that provide the basis for an obviousness determination include:

- A. Determining the scope and contents of the prior art;
- B. Ascertaining the differences between the prior art and the claims at issue;
- C. Resolving the level of ordinary skill in the pertinent art; and
- D. Evaluating evidence of secondary considerations.

Consistent with the *Graham*, the Manual of Patent Examining Procedure at section 2141 provides these basic tenants of patent law (emphasis added) that must be adhered to:

1. The claimed invention must be considered as a whole;
2. **The references must be considered as a whole** and must suggest the desirability and thus the obviousness of making the combination;

3. The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and

4. **Reasonable expectation of success is the standard with which obviousness is determined.**

Moreover, explicit disclosures in a cited reference that teach away from the purported combination cannot be ignored, as this an essential part of determining the scope and content of the prior art as required by *Graham v. John Deere*. In particular, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); MPEP § 2141.20.

Regarding the scope and content of Matsuda, Matsuda discloses a writing pad including two substrates each having electrodes formed on a surface in such a way that the respective electrodes face one another across a predetermined gap. *Abstract*. The gap is defined by insulating dot spacers fixed at regular intervals, which Matsuda discloses at column 6, lines 20-44 to be formed by spraying an organic solvent including a resin dissolved in the solvent. Matsuda discloses at column 6, lines 31-34 that especially preferred are solvents having relatively low boiling points, such as ethanol, isopropanol, etc. Matsuda provides between column 11 and column 16 eleven examples each including spraying a solution including about 960 parts by weight solvent and about 40 parts by weight solids. **Consequently, every example disclosed by Matsuda includes spraying a solvent solution having only about 4% by weight solids.** This 4% by weight solids solution is sprayed from a distance of about 1 meter toward the electrode surface for about 1 minute. (*See Example 1 at column 11, lines 20-26*).

Regarding the scope and content of Getz, Getz discloses (at column 3, lines 17-35 and column 4, lines 37-39) a different form of spacer element including an ultraviolet curable paste that is silk screen printed to form spacer dots. Getz provides an example at column 5 in which the spacer dot paste includes about 118 grams of solids and about 14 grams of solvent (thus, the paste is 89% by weight solids). The solvent employed by Getz is bidistilled water. (Getz at column 5, lines 27-30).

Under the tenets of *Graham*, it is respectfully submitted that there can be no reasonable expectation of success in combining the spacer dot paste disclosed in Getz having about 89% by weight solids with the solvent-based spraying solution disclosed by Matsuda having only about 4% by weight solids. First, the solvent-based system of Matsuda sprays a low boiling point solvent (an alcohol) containing about 4% solids. The Matsuda system appears to be incompatible with the 89% solids by weight, water-based paste of Getz. Thus, one of skill in the art would not combine the high solids, water-based solvent paste of Getz with the alcohol-based spraying system of Matsuda. Second, it is not reasonable to have an expectation of success in spraying the presumably thick (89% by weight solids) paste as disclosed by Getz in the process disclosed by Matsuda, especially over a distance of 1 meter as disclosed by Matsuda. Consequently, since Matsuda teaches away from combination with Getz, and since the proposed combination fails to have a reasonable expectation of success, it is believed that a *prima facie* case of obviousness has not been established based upon Matsuda in view of Getz.

In addition, *Graham* requires that the differences between the cited art and the claims at issue be ascertained. Pending independent claim 1 requires “ink jet printing a plurality of dots on a first conductive coating, each of the dots including nanoparticles.” Matsuda discloses at column 11, lines 21-27 **spraying** a solution having about 4% by weight solid particles from a distance from about 1 meter onto an electrode surface for about 1 minute while heating a glass plate to keep room temperature of the electrode surface at about 60 degrees Celsius. Getz discloses **silk screen printing** a paste having 89% by weight solid particles. Consequently, even if the disparate cited references are combined, the purported combination fails to teach or suggest at least the limitation of **ink jet printing a plurality of dots** on a first conductive coating, as required by independent claim 1. Thus, for this additional reason it is believed that a *prima facie* case of obviousness has not been established based on Matsuda in view of Getz.

Based on the above, it is believed that independent claim 1 is not rendered obvious by the cited references. Claim 2-7 and 15-18 further define patentably distinct independent claim 1. Thus, it is respectfully requested that the rejections to claims 1-7 and 15-18 under 35 U.S.C. §103(a) as obvious over Matsuda in view of Getz be withdrawn.

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Claims 8-14 and 52-56 were rejected under 35 U.S.C. §103(a) as unpatentable over Matsuda in view of Getz and further in view of Sacripante. The Examiner concedes at page 5 that Matsuda and Getz fail to teach ink jet printing a gel composition to define a plurality of dots on a first conductive coating, and concludes that it would have been obvious to one of ordinary skill in the art to include a gel composition as disclosed by Sacripante into Matsuda as modified by Getz to arrive at the limitation of independent claim 52. We respectfully disagree.

It is believed that there is no reasonable expectation of success in the purported combination of Matsuda in view of Getz, such that a rejection based upon Matsuda in view of Getz and further in view of Sacripante fails to establish a *prima facie* case of obviousness. Matsuda teaches away from combination with Getz, and Sacripante fails to cure this underlying deficiency. For at least this reason, it is believed that claims 8-14, which further define patentably distinct independent claim 1, are not rendered obvious over Matsuda in view of Getz and further in view of Sacripante. Thus, it is respectfully requested that the rejections to claims 8-14 under 35 U.S.C. §103(a) as obvious over Matsuda in view of Getz and further in view of Sacripante be withdrawn.

Independent claim 52 requires ink jet printing a gel composition to define a plurality of dots on the first conductive coating. Regarding the scope and content of Sacripante, Sacripante discloses in the *Abstract* and at column 7, lines 13-15 an ink including a vehicle having about 10% solids to about 90% solids and a gelling compound. Consistent with the reasoning above, the ink jet composition disclosed by Sacripante is incompatible with the silk screen printable water-based paste of Getz, and neither of the Sacripante composition nor the Getz paste is compatible with the 1 meter/1 minute spraying process disclosed by Matsuda. Thus, no reasonable expectation of success exists for the purported combination of Matsuda in view of Getz and further in view of Sacripante.

In addition, the explicit disclosures in the cited references related to the disparate printable compositions and the disparate processes of printing the compositions teach away from the purported combination, and cannot be ignored as this an essential part of determining the scope and content of the prior art as required by *Graham v. John Deere. W. L. Gore &*

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*Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); MPEP § 2141.20.

Consequently, it is respectfully submitted that a *prima facie* case of obviousness has not been established over Matsuda in view of Getz and further in view of Sacripante. Thus, it is requested that the rejections to claims 8-14 and 52-56 under 35 U.S.C. §103(a) as unpatentable over Matsuda in view of Getz and further in view of Sacripante be withdrawn.

**Conclusion**

Applicants submit that claims 1-18 and 52-55 recite patentable subject matter, are not taught or suggested by the cited references, are in condition for allowance. Applicants request early indication that claims 1-18 and 52-55 are allowed.

Respectfully submitted,

July 3, 2007

Date

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